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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/926,085	08/27/2001	Takenobu Sunagawa	011080	2186

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EXAMINER

ZALUKAEVA, TATYANA

ART UNIT	PAPER NUMBER
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1713

19

DATE MAILED: 04/03/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/926,085

Applicant(s)

SUNAGAWA ET AL.

Examiner

Tatyana Zalukaeva, Ph.D.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 January 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-8 is/are pending in the application.
- 4a) Of the above claim(s) 4,5,7 and 8 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3 and 6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1, 3-8 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Election/Restrictions***

1. Claims 4 and 5 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Claims 7 and 8 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim Applicant timely traversed the restriction (election) requirement in Paper No. 11. However, Applicants have not pointed out that the reasons advanced by the Examiner, and/or difference in classification are in error, therefore, the election is treated as being made without traverse, and is therefore said restriction is made **FINAL**.
2. Claims 1 and 6 are amended in Paper No.11. Claim 2 is cancelled.
3. Claims 1, 3, 6 are examined on the merits.
4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

***Claim Objections***

5. Claims 1, 3, 6 are objected to because of the following informalities: the recited ,  
“and 0.89.9%” as per claim 1 is apparently a typographical error. Correction is  
required. Appropriate correction is required.

6. Claims 1 and 6 stand rejected under 35 U.S.C. 102(b) as being anticipated by  
Hoebeke et al (U.S. 5,525,370).

Hoebeke discloses a thermosetting composition comprising as a binder a glycidyl  
group containing copolymer, which serves as a processing aid for linear carboxyl group  
polymer (abstract), such copolymer having number average molecular weight 4000 to  
10000 (weight average molecular weight is higher) (abstract). The copolymer contains  
5-30% of glycidyl methacrylate and 70-95% of methyl Methacrylate, whereby up to 25%  
of methyl Methacrylate may be replaced by another vinyl monomer. In details, the  
synthesis is described in Example 2, col. 10, 11.

The glycidyl group-containing acrylic copolymer, according to Hoebeke, is prepared by  
conventional polymerization techniques, either in mass, in emulsion, or in solution in an  
organic solvent. The monomers are copolymerized in the presence of a free radical  
polymerization initiator (benzoyl peroxide, dibutyl peroxide, azo-bis-isobutyronitrile, and  
the like) in an amount representing 0.1 to 1% by weight of the monomers).

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the glycidyl group-containing acrylic copolymer should have a number-average molecular weight

For better control of this molecular weight and its distribution, the monomers are polymerized in the presence of a free radical polymerization initiator and a chain transfer agent. The polydispersity of these copolymers  $M_w/M_n$  is preferably between 1.5 and 2.5. To achieve a good control of the molecular weight and its distribution, a chain transfer agent, preferably of the mercaptan type, such as n-dodecylmercaptan, t-dodecanethiol, isooctylmercaptan is added in the course of the reaction. The chain transfer agent is used in an amount of from 1.5 to 4%, preferably between 2 and 3.5% by weight of the monomers used in the copolymerization (col. 6, lines 37-45).

7. Claims 1, 3, 6 stand rejected under 35 U.S.C. 102(b) as being anticipated by Tugukuni et al (U.S. 4,256,805).

Tugukuni discloses a thermoplastic resin composition, comprising one of the ingredients as a copolymer obtained as follows: water 100 parts styrene 1 part 30 parts methyl methacrylate 20 parts 2-ethylhexyl acrylate 27 parts butyl acrylate 13 parts glycidyl methacrylate 10 parts dodecyl mercaptan 1 part were radically polymerized according to any known methods.

***Response to Arguments***

8. Applicant's arguments with respect to rejections under Shimada, Yamamoto, Higuchi, Maeda, Albrecht and JP'950 have been considered but are moot in view of the new ground(s) of rejection, that have been made due to Applicants' amendment.

9. Applicant's arguments filed on January 27, 2003 with regard to references to Hoebeke and Tugukuni in rejection of claims 1, 3 and 6 have been fully considered but they are not persuasive. The **crux** of Applicants' arguments with regard to Hoebeke is that Hoebeke does not teach or suggest the use of t-butyl peroxy group.

In response to this, Applicants attention is respectfully drawn to a language of the instant claim 1 that recites the following: "... in the presence of mercaptan having an ester group with C<sub>4-20</sub> alkyl group as a chain transfer agent, **and/or** (emphasis added-T.Z.) an organic peroxide having a tertiary-butyl peroxy group as a polymerization initiator."

Therefore the presence of a tertiary-butyl peroxy group as an initiator in claim 1 is totally

**OPTIONAL.**

10. Applicants' argument with regard to Tugukuni reference resides in contention that Tugukuni although di-t-butyl peroxide is "mentioned in specification, is not used in example"

In response to this, Applicants are cordially reminded that disclosed examples and preferred embodiments do not constitute a teaching away from a **broader**

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**disclosure or nonpreferred embodiments.** *In re Susi*, 440 F.2d 442, 169 USPQ 423 (CCPA 1971). A reference may be relied upon for all that it would have reasonably suggested to one having ordinary skill the art, **including nonpreferred embodiments.** *Merck & Co. v. Biocraft Laboratories*, 874 F.2d 804, 10 USPQ2d 1843 (Fed. Cir.), cert. denied, 493 U.S. 975 (1989). See also *Celeritas Technologies Ltd. v. Rockwell International Corp.*, 150 F.3d 1354, 1361, 47 USPQ2d 1516, 1522-23 (Fed. Cir. 1998.)

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tatyana Zalukaeva, Ph.D whose telephone number is (703) 308-8819. The examiner can normally be reached on 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on (703)308-24-50. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

  
**Tatyana Zalukaeva, Ph.D.**  
**Primary Examiner**  
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March 28, 2003